

Formation of photonic echo signals in the presents of a strong concentration quenching effect

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Abstract

The connection between the photonic echo formation in crystals doped by rare-earth elements and the concentration effects was studied. The application of optical echo spectroscopy in studies of garnet crystals with a high content of thulium impurity was demonstrated. By the example of activated crystals of ruby and lanthanum trifluoride, the spectral transformation of the photonic echo signals was analyzed in the present of the concentration quenching effect. © 2009 Allerton Press, Inc.

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